5: Rouse E-4 (no date) 1948 ST13 Callinago ST13
(1650-1700)

if the vessel overturned. Large rectangular baskets, turned upside down 285
and provided with wooden legs 4 to 5 inches (10 cm.) tall, served as tables (matoutou). The basketry technique was used also in the manufacture of strainers, sieves, and mats, the functions of which have been described above. In historic times the natives had brooms.

The weaving of cloth may not have been an original part of *Carib* 286
culture. The women had wooden spindles for making thread and used belt looms for weaving it. They stretched the warp threads from a stick on one side of the house to a stick on the other; then two women wove in the weft, beating the threads down with a sword-shaped stick. The cloth was dyed with various colors, particularly red, and was sewn with a needle made from a palmetto spine.

Pottery and gourds.—The *Carib* baked pots and griddles of clay; the 415
former were indispensable for making beer. They had numerous gourd [323]
containers, made by removing the pulp with hot water and pebbles. These included bottles for urucú, covered bowls (coyenbouc) for carrying trinkets, platters, cups, dippers, and spoons. Often they were engraved or painted. Coconut shells were treated in the same manner.

Woodworking.—The men not only carved canoes of wood but also 322
they made bowls, which were used primarily for drinking bouts, and stools, which either were solid or were provided with four legs.

Fire making.—The people made fire by rubbing one mahot stick 372 ●
against another.

SOCIAL AND POLITICAL ORGANIZATION

Except in wartimes, each *Carib* village seems to have been an indepen- 621
dent organization. It consisted of an extended family which had split away from some other village and was headed by its founder. This man, 622
called a carbet chief or tiubutuli-hauthe, had charge of the carbet and of the entertainment which took place therein. He probably also supervised fishing and the cultivation of the land, which seems to have been communal. Although he was treated with deference, he had little authority. The *Carib* men were individualists, and they looked down upon the [167]
Europeans for taking orders.

Each island also had one or two war chiefs, called ubutu, who were 624
elected to hold office for life. Except that ownership of a caracoli seems to have been one of the requirements for this chieftainship, no heredity was involved in the office. However, a son might succeed his father if he could prove himself worthy. He had to be an experienced warrior with a good record, excel in swimming and diving, show that he could carry a greater burden than his followers, and bear burning and slashing of his flesh without flinching.

The war chief was particularly honored. He was provided with an assistant, and wherever he went he was surrounded by a retinue. His

6: Taylor E-5 (1930-1937) 1938
ST13 Callinago ST13

283 It would, and doubtless has in the past, serve to weave excellent hammocks.

Langue-boeuf, a species of wild agava (*Agave americana*), is also used in the manufacture of thread and twine. In this case the separation of the fiber necessitates a preliminary soaking or rotting process, as in the case of hemp. Once disengaged, the fiber is submitted to the same processes as *Bromelia*.

Maho (or mahaut) is the name given to a number of trees of different species, whose only common characteristic is the use to which their bark may be put in making ropes and cords. They are: Maho noir (or bois violon, *Guatteria* sp.), maho piment (*Daphnopsis caribbaea*), maho cochon, maho doux, maho figue. Some, such as bois violon, are indigenous, while others, such as the bananalike maho figue, are imported. Strips of the bark from these trees are shredded and twisted—some rudely, to make halters and ropes, others being tressed carefully into as fine a twine as that of *Bromelia* or *Agave*.

FIGURE 27.—Spinning fiber twine.

Besides the above-mentioned raw materials, all of which require more or less preparation and manufacture, the woods abound in all manner of natural cords and lianas, some as thick as a man's arm, some as fine as cotton yarn. These are put to a number of uses, some, such as mibi (*Stigmatophyllum puberum*), being used for tying palm-leaf or cane-straw thatchings of muinan and karbé, as well as in basketry; while others, such as caapi (species of native ivy), are employed in the catching of crayfish (see below).

FIRE AND LIGHT, GUMS, WAX, RESIN, OILS, AND PIGMENTS

372 The so-called fire drill (fig. 28), with which fire was obtained by revolving a long pointed stick between the palms of the hands, after the manner of a swizzle stick or "lélé," in a groove made in another and softer piece of wood, is remembered, but no longer used.

The Carib tinder box (fig. 29), locally called "briquet" or "coucou du feu" (the coyemboue mentioned by Father Labat as having been used in his day for storing trinkets, etc.), is made from a species of calabash known as "callebasse-boite." Two halves, which may be decorated or plain, are fitted together after the manner of an Easter egg, and contain a "fire stone" of red, white, or black jasper, an old

6: Taylor E-5 (1930-1937) 1938
ST13 Callinago ST13

iron file, and a piece of dry rotten wood to catch the spark. The specimen I have has a diameter of 6.5 cm and a total length of 12 cm. These are still in general use, especially among those who go hunting or canoe making in the high woods.

The dried root of the tree fern is used to preserve fire and to carry it from place to place. Spongey and peat-like, this wood will burn for hours without smoke or flame, generating great heat and leaving hardly any ash. Hence the Caribs give it the name "watu hâkuiyâ—voracious fire."

FIGURE 28.—Fire drill.

Torches (flambeaux) of two kinds are still made and used. Gum—usually from the white gommier (*Dacryodes hexandra*), of which practically all the dugout canoes are made—is collected after scraping the bark at the base of the trunk. It is then molded, candlelike, around a central wick made from the pounded wood of the tree fern, of bois diable (*Licania hypleuca*), or of icaque (*Hirtella triandra*). The whole is wrapped in the shroud or outer covering of the unopened palmiste heart, or in that of the yattaghu (?) palm, and bound up with *Bromelia* twine. (The palmiste of the islands is the manicol (*Euterpe* sp.) palm.)

FIGURE 29.—Tinder box, engraved and colored with resens.

Another kind of torch is made from the so-called bois chandelle (*Amyris* sp.). The wood is merely split lengthwise and bound up in bundles or faisceaux. The gum of the *Icica heptaphylla* (gommier l'encens) is also used for torches, while the gum of the courbaril (*Hymenea courbari*) might well be but is not so used. The size of the torches is largely a matter of taste, the average being about 4 feet long and the thickness of a man's leg. A good gum torch will burn continuously for some 10 to 12 hours, while a candlewood torch lasts only about 2 hours. Both give off a good deal of smoke, which has, however, a pleasant, highly fragrant smell. The candlewood gives, perhaps, the clearer flame.

The gum of the red lowland gommier (*Bursera gummifera*) is more liquid than the preceding and is used only as a plaster applied to cure contusions.

Beeswax is used principally for making into candles and is of two distinct varieties. The common European honey bee, presumably

6: Taylor E-5 (1930-1937) 1938
ST13 Callinago ST13

237 once imported but now found in a wild state, makes a typical comb (locally called "cassava") whose wax, at first yellow, becomes quite white on boiling and straining. Left to itself, it soon becomes hard. On the other hand, the native stingless bee (sometimes called "pou lélé"), small and dark of color, makes a sort of pouch about a foot long, interiorly divided into pockets, in lieu of comb. The wax is brown-black and remains perfectly malleable, however long it is kept. For this reason it is often used for molding figurines, etc. The honey itself is liquid, very slightly viscous, of a clear brown hue, and has a fragrant subacid taste (miel sûr).

314 Two kinds of oil are commonly made and used in the reserve today. Carapate oil, so-called, is nothing more than the oil of the palma Christi, castor oil, one or two of which shrubs grow near every house. The berries are gathered when ripe and stored until required in baskets or calabashes in the kitchen. When oil is wanted they are roasted, pounded in a mortar, and the resulting paste boiled, whereupon the oil rises to the surface and is skimmed off. The women make this [302] oil and use it for anointing their hair. The *Carapa guianensis*, from which oil used to be made, still grows in the woods of Dominica, but is used today only for its wood.

237 Shark oil, made by the men, is used in cruses for interior lighting. [372 Boiled together with copal gum and mixed with dry plaintain straw, it 501] serves in the calking of canoes.

Turtle oil is known to have been made and used for cooking, but owing to the present rarity of this animal and the laws made for its preservation is seldom met with today.

314 Coconut oil is occasionally made for sale but is never put to any domestic use in Carib households.

Manni (*Moronobea coccinea*?) is the name given to a blackish resinous substance used by the Caribs for strengthening the *Bromelia* twine with which they bind their baskets. I have seen lumps of it as big as a man's fist in the homes of basket makers. It is interesting to note that the tree from which this resin comes is not found in Dominica, nor, as far as I know, in the neighboring islands. The Caribs seek and gather their supply on the beach, where the ocean currents deposit it at certain times of the year, chiefly in February and March.

386 Pigments are singularly ignored nowadays. Roucou (*Bixa orellana*) still grows near many of the houses, but as the wearing of clothes has become general since the introduction of Christianity, its use as a skin protection against sun and insects has been forgotten. It is at present used occasionally as a decorative coloring matter in the home, but the present-day Caribs do not know of any fixative medium. Formerly it was used, mixed with oil of carapa, as a body paint, and the bright red pigment obtained by rubbing between the palms of the hands the ripe seeds contained in a half-opened pod.

9: Ober N-5 (1876-1878) 1895
ST13 Callinago ST13

mocks, etc. They made fire by the friction of two sticks, and torches of candle-wood."

The author quoted above appends an extensive vocabulary to his work, from which I extract a few words which, he says, were common between the Caribs and the Apalaches, of Florida: as, Cakomees, or little curiosities; Bouttou, a club of weighty wood; Taumali, "a certain piquancy or deliciousness of taste"; Etonton, an enemy; Allouba, a bow; Allouani, arrows; Taonaba, a great pond; Mabouya, an evil spirit; Akambouyi, the soul of man, etc.

This much from the ancient writer, to explain the status of the Carib, as a savage, or semi-savage. Let us now turn to modern descriptions of him, as found in Guiana, his present home. As to the tribal name, a recent writer says: "The Arawak name for Carib Place, or home, is *Caribisi;* the Caribs style themselves, *Carinya.*"[1] Humboldt says: "They call themselves Carina, Calina, Callingo. The Calibis (of Cayenne) and others, who originally inhabited the plains between the mountains of Caripe (Caribe) and the village of Maturin, also the native tribes of Trinidad, and the village of Cumana, are all tribes of the great Caribbee nation." Davies, the author previously quoted, says: "The ancient and natural inhabitants of the Caribbees, are those who have been called by some authors Cannibals, Anthropophagi, or Eaters of Men; but most of others who have written of them commonly called them Caribbians, or Caribs; but their primitive and originary name, and that which is pronounced with the most gravity, is Carīibes. They believe themselves descended from the Caribites, or Calibis, of the Main, in that country or province which is commonly called Guayana. The Caribs of St. Vincent said (1600) that their first insular ancestors were rebels against the Arrowaks, and retreated to the Caribbees (then inhabited by scattered Arrowaks), first to Tobago, and thence going still farther northward."

[1] "Among the Indians of Guiana," by E. F. Im Thurn, London, 1883.

9: Ober N-5 (1876-1878) 1895
ST13 Callinago ST13

garments, occasionally, and beads. . . . The Guiana Indians still make fire by rubbing two sticks together; they make baskets similar to those now made by the West-Indian Caribs, as well as cassava sieves, *matapies*, or cassava strainers, and other articles of the Indian economy. . . . Cotton is preferred by the Caribs to all other fibers. They still use the *tiki*, or wooden war-club, the only aboriginal weapon now in use. . . . The celebrated ourali poison is made chiefly by a single tribe, the Macusis, and particular Indians. . . . In the shell mounds, the objects found resemble those from the West Indies; and human bones have been found split open, as if for their marrow. Of aboriginal art, as shown in paintings or carvings, there are few traces, the petroglyphs being few and very rude in design and execution. . . . One practice still prevails among the Caribs of which we find no trace in the island: that is *couvade*, or male child-bed, when the man, at parturition, takes to his hammock, where he stays for days, and even weeks (if he be delicate), and is fed on gruel, abstains from smoking, and is comfortably coddled, while the poor woman attends to her hardly-interrupted domestic duties. In conclusion, as to the religion of the Guiana Caribs, it is a pure animism; every Indian believes that he himself, and every human being, consists of two parts, a body and a soul, or spirit; and moreover, that all other objects have the same qualities; the whole Indian world swarms with spirits, good and evil. They do not believe in a spiritual hierarchy, — only in spirits that are, or once were, situated in material bodies of some kind, — and no apotheosis has of these made gods, or a God. . . . The Carib name for God, *Tamosi*, means the Ancient One. . . . As to scientific acquirements, the Indian, now, as in ancient times, is without even the rudiments of scientific thought . . . "

CARIB PETROGLYPHS, IMPLEMENTS, AND POTTERY. Were it not even that we still have evidence of the existence in the Carib area of Indians who dwell here, in the con-

13: Hodge & Taylor N, E-5 (1930-1956) 1957
ST13 Callinago ST13

HODGE. These voucher specimens of the plants used by the Dominica Caribs have been determined and deposited at the Gray Herbarium of Harvard University. Certain duplicates may also be found in the herbaria of the Bailey Hortorium, the New York Botanical Garden, the Smithsonian Institution, the University of Massachusetts, and the British Museum (N. H.). 128

IV. CATALOGUE OF THE KNOWN ECONOMIC PLANTS OF THE DOMINICA CARIBS

824?

CYATHEACEAE. TREE-FERN FAMILY.

Cyathea arborea (Linnaeus) J. E. Smith, Mem. Acad. Turin 5.: 417. 1793.

Fougère, Tree-Fern. — *amámei*.

A common tree-fern of the West Indies, Mexico and Venezuela. In Dominica this beautiful species is a weed of open wet slopes at lower and middle elevations where it often forms extensive colonies on abandoned cultivations.

The woody caudex is dried by the Caribs and used as a tinder. [372] Since the wood is peaty it burns readily for long periods and so is used to carry fire from place to place. The spores are said to [789] be used as a « charm », and are gathered by spreading a sheet beneath a fertile plant « on Midsummer Night ».

Specimen citation: 6, 7, 2444, 2880.

PANDANACEAE. SCREW-PINE FAMILY.

Pandanus utilis Bory, Voy. 2: 260. 1804.

Screw-Pine. — *bárakus* (« ungual »?).

A native of Madagascar, sometimes cultivated in the West Indies. This species has become naturalized in several coastal areas (e. g. Marigot, Hatton Garden, etc.) of Dominica.

The septa of the leaves are prepared in the same way as latanier (*Coccothrinax martinicensis*), and are used by the Caribs [285] for plaiting hats and baskets and occasionally as thatch for huts [342] or shelters.

Specimen citation: No herbarium material collected.

13: Hodge & Taylor N, E-5 (1930-1956) 1957
ST13 Callinago ST13

634[x]
[373]

Fig. 12

Fig. 13

[411]

Fig. 14

DOMINICA CARIB PLANTS. — Fig. 12 – Common tree ferns, *Cyathea arborea*, a charm plant whose dried caudices are a source of tinder. Habit. — Fig. 13 – A single frond of the same. — Fig. 14 – Wild cane, *Gynerium sagittatum* (right foreground), a basketry plant formerly important as a source of arrow shafts.

[opposite p. 546]

13: Hodge & Taylor N, E-5 (1930-1956) 1957
ST13 Callinago ST13

Timbre of bois diable is used by the Indians for posts, sole-
plates, etc., while the wood is considered to be the best in Dominica for the manufacture of charcoal, the principal kitchen fuel of the island. The pounded wood is also employed by the Carib as a wick in torches made of the gum from the gommier (*Dacryodes excelsa*).

Specimen citation: 578, 1237, 2067, 2672.

LEGUMINOSAE. Pulse Family.

Andira inermis (Wright) Humboldt, Bonpland, and Kunth, Nov. Gen. 6: 385. 1823.

Andira jamaicensis Urban, Symb. Ant. 4: 298. (1905).

Bastard Mahogany. — Angelin, L'Angelin. — *uakábu* (« house-post »).

This species of tree is found throughout the West Indies and continental tropical America, and in Dominica occurs at lower to middle elevations.

The hard, red-brown wood of angelin is very durable and is used by the inhabitants of Dominica, Caribs included, for posts, boards and all types of heavy constructional work.

Specimen citation: 3332.

Arachis hypogaea Linnaeus, Sp. Pl. 741. 1753.

Peanut. — Pistache. — *mâli* (cf. Tupi *mandubi*).

The peanut is widely cultivated in the warm temperate and tropical regions of the earth. Although earlier writers believed in an Old World origin this American species is probably indigenous to Brazil, but was also known in pre-Columbian times by the ancient Peruvians (1) (11).

Caribs eat the seeds either raw or roasted, and an oil is also prepared by grinding. Raw seeds are considered to possess aphrodisiacal properties. The pistache is also an ingredient in a ritual bath described under *Ocimum micranthum*.

Specimen citation: 3328.

Cassia alata Linnaeus, Sp. Pl. 378. 1753.

Herpetica alata Rafinesque, Sylva Tell. 123. 1838.

Ringworm Shrub (18). — Desay.

13: Hodge & Taylor N, E-5 (1930-1956) 1957
ST13 Callinago ST13

trunk of the tree. Bird-limes are also obtained from other species including the immigrant breadfruit [*Artocarpus altilis* (Park.) Fosb.], whose white sap must be mixed with oil; and l'arali (*Clusia plukenetii*) whose white sticky sap is definitely inferior as far as this use is concerned. Sticks (about 1 ½ feet long) for fire-drills were formerly cut from the wood of la glu (also from *Bixa orellana*). According to BRETON (7) sparks, used to ignite dried moss or rotten wood, were produced by twirling one stick in a notch cut in the other. The Hercules beetle (*Dinastes* sp.) is found in rotting trunks of la glu. These huge insects, called *anrehire*, are caught either as a curiosity or for sale to tourists.

Specimen citation: 3362.

ANACARDIACEAE. CASHEW FAMILY.

Anacardium occidentale Linnaeus, Sp. Pl. 383. 1753.

Cashew. Pomme Noix. — *úlui, álui, úrui.*

The cashew is a characteristic spreading tree of the West Indies and continental tropical America. It is often cultivated for its fruit, but occurs in a natural state in Dominica at lower elevations.

The swollen receptacle of the fruit is edible and refreshing, and is the source of a juice formerly fermented by the Caribs to make a drink. The kernel or nut is eaten after being roasted. From the leathery fruit-coat a caustic and poisonous oil is obtained which is used either as a cure for dartres, or as a stain or marking ink.

Specimen citation: 660, 3344.

Spondias mombin Linnaeus, Sp. Pl. 371. 1753.

Spondias lutea Linnaeus, Sp. Pl. ed. 2. 613. 1762.

Hog Plum. — Monben, Mombin. — *úbu, húbu, múbĕ.*

A tree of tropical America frequent in Dominica at lower elevations. The yellow, pleasantly acid fruits of this species are the «myrobalans» of the Columbian voyages. In Jamaica and elsewhere the hog plum is used in the construction of live fences while the strong but light wood is used as a cork substitute (18).

13: Hodge & Taylor N, E-5 (1930-1956) 1957
ST13 Callinago ST13

Formerly pimrut

[814] [263] [302] [534] [372] was added instead of sugar. Small abortive pods (i. e. those which turn yellow instead of maturing) are used as a constituent of a shampoo which supposedly promotes growth of the hair. The wood is utilized in the construction of frames for drums (tambour basque), and was formerly used for fire drills.

Specimen citation: no herbarium material collected.

DILLENIACEAE. Dillenia Family.

Doliocarpus calinoides (Eichler) Gilg in Engl. & Prantl, Nat. Pfl. 3: 114. 1893.

Corde d'l'Eau.

A stout liana inhabiting the mountain forests of Puerto Rico, Guadeloupe, Dominica, and Trinidad.

[272] This vine contains a pint or more of refreshing water which, on cutting the stem, is released and drunk by the Caribs. The species is rather rare and is known chiefly to hunters who say that one must sever the liana with one stroke else the water will mount up the cord.

Specimen citation: 37 (T).

GUTTIFERAE. Clusia Family.

Calophyllum brasiliense Camb. var. **antillanum** (Britt.) Standley, Tropical Woods 30: 7. 1932.

Calophyllum antillanum Britton in Britton & Wilson, Bot. Porto Rico (Sci. Surv. Porto Rico & Virg. Isls. 5). 584. 1924.

Calophyllum calaba sensu Grisebach, Fl. Br. W. I. 108. 1859, as to Dominica citation.

Calaba, Galba, Maria, Santa Maria.

A West Indian tree found in Dominica at lower elevations.

This species is valued throughout the Antilles as a source of timber. Some of the big canoes of the Tainos of Cuba and Hispaniola were constructed from the wood of this tree.

[313] The hard, durable, reddish brown wood of galba is used by Carib (and Creole) for posts, furniture, and general construction purposes.

Specimen citation: 3199.

13: Hodge & Taylor N, E-5 (1930-1956) 1957
ST13 Callinago ST13

824x

Clusia plukenetii Urban, Symb. Ant. 5 : 432. 1908.
Caquelin, Lagali, Larali, Mang Rouge [43] (cf. French : manglier, mangle). — Pomme Chique.

An epiphytic strangler tree of mountain rain-forests ; ranging in the Lesser Antilles from Dominica to Barbados.

Considerable confusion exists among the local names applied by the Creoles to this species of *Clusia*. Kakle or caquelin is the most frequent appellation but the name mang rouge is used at Bellevue, and larali (or lagali) [44] in the Carib Reserve.

The white sticky sap of *Clusia plukenetii* is infrequently used as an inferior bird-lime by Carib hunters. The aerial roots are sometimes employed in basketry and the wood makes an excellent fuel for a local type of improvised lime kiln used by both Carib and Creole. For a further use of this species see *Ipomoea pes-caprae*.

[223 285 372]

Specimen citation : 3206, 3251.

Mammea americana Linnaeus, Sp. Pl. 512. 1753.
Mamey, Mammee-Apple. — *masioui*.

A large handsome tree native to the West Indies but widely planted in the tropics for its edible fruit.

The strong durable wood of the mamey is used occasionally for posts, piling, and general construction (50) ; the fruit is eaten raw after soaking in wine and sugar (18), or is used to make an excellent marmalade. In the neighboring French Antilles the flowers, distilled in spirit, make a liqueur known as *eau créole* ; while « the gum, melted with fat, is applied to the sores made by chigoes » (18).

[313] [252 262]

Like species of *Ficus* and *Ceiba pentandra*, this species is considered by the Dominica Caribs to be the home of the « tree-spirit » (see discussion under *Ceiba*).

[776]

Specimen citation : no collection made.

Rheedia lateriflora Linnaeus, Sp. Pl. 1193. 1753.
Hat Stand Tree (67). — Bois Chica.

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[43] Not to be confused with another non epiphytic tree, *Tovomita plumieri* more generally known by this name.

[44] A tree called lagli or la glu, *Sapium caribaeum*, should not be confused with this species of *Clusia*.

13: Hodge & Taylor N, E-5 (1930-1956) 1957
ST13 Callinago ST13

quantity of seeds between the palms and scraping off the resultant paint with a piece of wood or with a knife. *Bíset* body paint was mixed with powdered charcoal (derived from the wood of bois chandelle, *Erithalis fruticosa*) to moderate its brilliance.

The roots of *Bixa orellana* are sometimes used to flavour meat or sauces. Sticks used as fire drills were made of annatto wood 'also from wood of bois la glu (*Sapium caribaeum*), bois chandelle (*Erithalis fruticosa*), maho noir (*Guatteria caribaea*), and cacao (*Theobroma Cacao*), etc.'. For further uses of *bíset* as an ingredient of ritual baths see *Ocimum micranthum* and *Ipomoea pes-caprae*.

Specimen citation: 3225, 3303.

PASSIFLORACEAE. Passion-Flower Family.

Passiflora foetida Linnaeus, Sp. Pl. 959. 1753.

Mariguja. — *merékuia* (cf. Tupi *marakuya*), *lẽ méku* (« monkey's genitals »).

This passion-flower occurs in Jamaica, Puerto Rico, the Lesser Antilles, and throughout tropical South America. In Dominica mariguja occurs on waste stony ground, open slopes, or in hedgerows at lower elevations.

The fruit of this wild species is eaten by the Caribs, and the leaves are made into a « tea » said to be good for colds. The tea is used also to bathe people when they are weak.

Specimen citation: 3193.

Passiflora laurifolia Linnaeus, Sp. Pl. 956. 1753.

Water Lemon — Liane Pomme, Pomme de Liane (name of fruit). — *merékuia* (cf. Tupi *marakuya*).

An oft-cultivated species of the West Indies and tropical South America. The pomme de liane is a common slender climbing vine most frequent in Dominica in thickets near streams at lower elevations, particularly on the windward coast.

Caribs peel the slender stems for use as a material in spiral basketry, in the same way that the lianas known as *míbi* (*Anthurium palmatum* and *Monstera pertusa*) are employed. The fruits are edible.

Specimen citation: 108 (T), 2945, 3162, 3735.